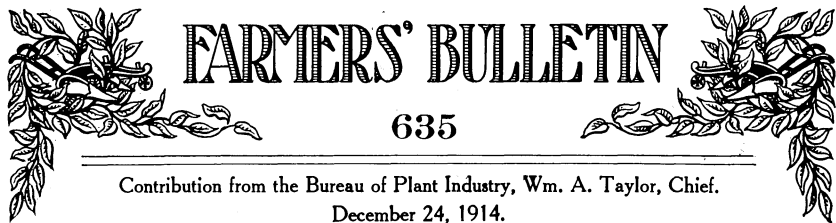


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FARMERS' BULLETIN

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WHAT THE FARM CONTRIBUTES DIRECTLY TO THE FARMER'S LIVING.¹

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INTRODUCTION.

According to the Thirteenth Census, approximately 32 per cent of the population of the United States are actually living on farms. Most of these depend upon the farm for their livelihood. Some studies have already been made to determine the labor income² of farmers in various sections, but this income is exclusive of what the farm furnishes in food, fuel, and house rent. The farm should be credited with the indirect income it furnishes to the farmer's family in products and in the privilege of the use of the house. (Fig. 1.)

This indirect income from the farm is often underestimated by the farmer or merely taken for granted and its real value not appreciated.³ The person whose vocation demands that he live in the city has to pay a large proportion of his income for those things which the farmer receives without any cash outlay. It is what the farm furnishes directly toward the living expenses of his family which enables the farmer to get along, even though his crops are poor or the loss on

¹ Acknowledgment is due to Mr. Ramsay Spillman, who assisted in collecting the data presented in this bulletin. Thanks are also extended to those farmers and their wives in the regions studied through whose courtesy this work was made possible.

² Warren, G. F., Livermore, K. C., and others. An agricultural survey—townships of Ithaca, Dryden, Danby, and Lansing, Tompkins County, N. Y. N. Y. Cornell Agr. Exp. Sta. Bul. 295, p. 375-569, fig. 147-201. 1911.

Thomson, E. H. Agricultural survey of four townships in southern New Hampshire. U. S. Dept. Agr., Bur. Plant Indus. Cir. 75, 19 p., 3 fig. 1911.

Thomson, E. H., and Dixon, H. M. A farm-management survey of three representative areas in Indiana, Illinois, and Iowa. U. S. Dept. Agr. Bul. 41, 42 p., 10 fig. 1914.

Spillman, W. J. The farmer's income. In U. S. Dept. Agr., Bur. Plant Indus. Cir. 132, p. 3-7. 1913.

³ This study constitutes a part of the investigations conducted by the Office of Farm Management of the Bureau of Plant Industry relative to the profits in farming. The farm-management surveys which had been made showed the farmer's labor income, exclusive of those items furnished by the farm for family use. It is evident that these items constitute a very important part of the farmer's income. It was to gain an idea of the value of this indirect income that this study was begun.

NOTE.—This bulletin gives the results of studies to determine the indirect income furnished by the farm to the farmer's family; it is particularly applicable to the region east of the Rocky Mountains.

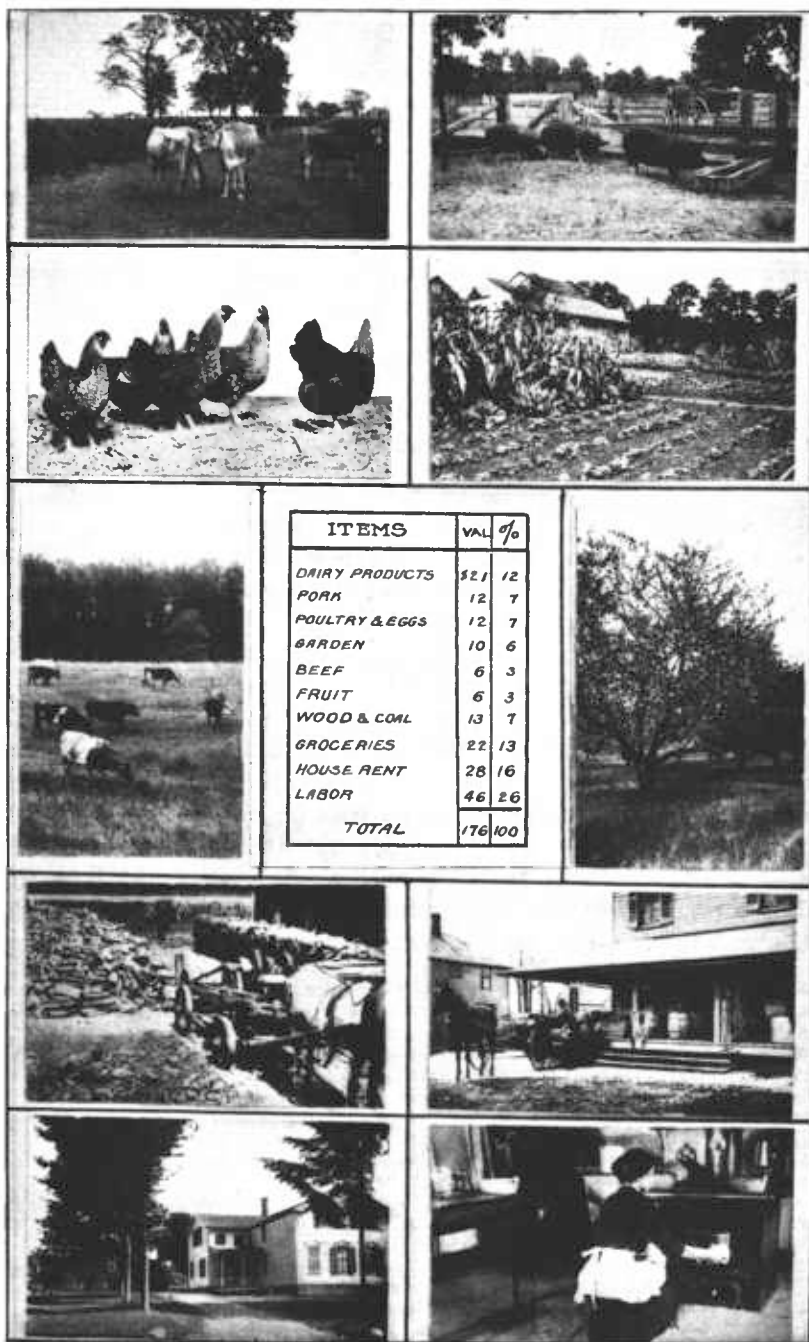


FIG. 1.—Approximate annual value for each person in the farm family of ten important items in the cost of living.

his live stock eats up his profits. Food and shelter are the important requisites of life, and a good proportion of these necessities are furnished by the farm in addition to the income derived from the sale of farm products. The labor income is therefore not the limiting factor in determining how much the farmer shall have to eat, but it is of the wage earner in the city.

This bulletin contains the result of a study carried on in the summer of 1913 by the Office of Farm Management to determine the value of that part of the farmer's living which is furnished directly by the farm. The data presented concern the food products, fuel, and the use of the farmhouse. Figures are also given showing the value of the food and fuel bought, the value of which becomes important when considered in relation to the quantity furnished by the farm. The facts presented here will be supplemented by a more general study of the subject.

METHOD OF OBTAINING DATA.

The survey method of study was used in obtaining the data contained in these pages. No attempt was made to select any special class of farmers. The practice was to drive along a road in the district selected and visit every farmhouse, the aim being to obtain a true average of the conditions for that community.

Most of the information was procured from the farmers' wives. Very few housewives kept accounts, but when questioned, item by item, careful estimates of the quantity of products used either weekly, monthly, or annually would generally be forthcoming, and the enumerator could then easily reduce them to a common basis.

In most instances the data given were estimates, but the interviewing was done carefully, and the farmers and their wives were surprisingly well acquainted with the quantity of the various items used. In such a study the extreme estimates are eliminated by the use of averages. The most important items are best remembered, which fact strengthens the accuracy of the results.

The total number of families from which satisfactory records were obtained was 483. This number was fairly evenly distributed through the 10 different areas visited, the lowest number (43) in any one section being in Pennsylvania.

REGIONS STUDIED.

The quantity of farm products furnished to the household is affected by the climate, the type of farming, and the length of the growing season. It thus seemed desirable in this preliminary work to make studies under widely varying conditions. (Fig. 2.)

Three cotton-growing areas were visited: Gaston County, N. C.; Troup and Meriwether Counties, Ga.; and McLennan County, Tex.

The types of agriculture in North Carolina and Georgia were fairly similar, cotton and corn being the main crops. In the Texas area, however, a definite rotation of corn, oats, and cotton is followed. Five and six horse teams here take the place of the one and two horse teams found in North Carolina and Georgia.

Cloud County and Montgomery County, both important corn-growing districts, were selected for the work in the States of Kansas and Iowa, respectively. The chief crops grown in the Kansas area are corn, wheat, and alfalfa, though some farmers raise only corn and alfalfa. A series of dry years has discouraged the growing of all but a few vegetables. In the Iowa area the agriculture is more diversified, considerable oats and wheat being grown. Hog raising is an important industry in both these sections.

The Jefferson County, Wis., area is wholly a dairy section. The money crops raised are oats and barley. Considerable pure-bred Holstein and Guernsey live stock is raised here.

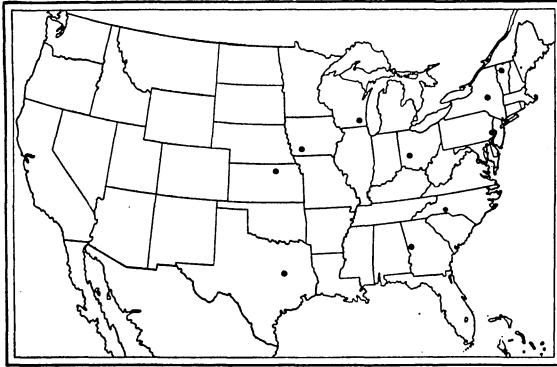


FIG. 2.—Map of the United States, showing the location of the areas studied in this investigation of the cost of living on the farm.

General farming is the prevailing type in Champaign County, Ohio, and in Bucks County, Pa. Corn, oats, wheat, and hay are the principal crops, with small dairies on many of the farms.

In Otsego County, N. Y., and Lamoille County, Vt., dairying is the chief enterprise. The growing seasons here are appreciably shorter than in any of the other areas.

All of these districts are typical of large agricultural areas and the families visited were representative farm families. In Texas, 23 out of 44 families visited were tenants, but in practically all the other sections 1 of every 3 was a tenant.

THE FARMER'S LIVING.

The three important elements furnished by the farm for the family are food, fuel, and the use of a dwelling. Food is the most important of these. Of the total value of products and privileges furnished by the farm, food equals 62 per cent; house, 30 per cent; and fuel, 8 per cent.

In the Southern States the values of food products furnished by the farm are appreciably higher than in the Northern States, owing

to the long growing season for vegetables and to more meat being furnished by the farm for home consumption.

In the Southern States less fuel is needed than in the other States. In the Texas area the farm furnished only a small portion of the fuel used, most of the farmers buying both wood and coal.

In Table I the average values per family of food, fuel, and use of house are shown by States. The general average of these items furnished by the farm per family is \$421.17. This amount represents a very valuable contribution of the farm toward the farmer's living, and in many cases is no doubt greater than the labor income received from the farm. It should be remembered that these same products and privileges would cost considerably more in a city.

TABLE I.—Average annual value of the food, fuel, and use of a dwelling furnished by the home farm to 483 families in 10 representative agricultural districts.

State.	Num-ber of fam-ilies.	Per-sons in family.	Food.		Fuel.		House rent.		Total.	
			Per family.	Per person.	Per family.	Per person.	Per family.	Per person.	Per family.	Per person.
North Carolina.....	55	4.5	\$330.65	\$73.47	\$41.87	\$9.30	\$56.00	\$12.45	\$428.52	\$95.22
Georgia.....	50	5.4	376.03	69.65	51.60	9.56	92.00	17.04	519.63	96.25
Texas.....	44	5.3	275.62	52.00	4.13	.78	83.00	15.66	362.75	68.44
Kansas.....	46	4.5	292.48	65.00	17.97	4.00	116.00	25.80	426.45	94.80
Iowa.....	51	4.4	297.28	70.80	30.20	7.20	158.00	37.62	485.48	115.62
Wisconsin.....	46	4.2	209.44	47.60	35.80	8.14	130.00	29.54	375.24	85.28
Ohio.....	44	4.1	248.28	60.57	30.50	7.44	172.00	42.00	450.78	110.01
Pennsylvania.....	43	5.2	201.69	38.80	17.91	3.44	163.00	31.34	382.60	73.58
New York.....	55	4.0	189.60	47.40	53.80	13.45	188.00	47.00	431.40	107.85
Vermont.....	49	4.8	192.43	40.10	63.40	13.21	93.00	19.38	348.83	72.69
Total or average	483	4.6	261.35	56.54	34.72	7.65	125.10	27.78	421.17	91.97

It is not possible, for want of certain data, to show what relation the house rent, food products, and fuel furnished by the farm bear to the income received by the farmer. It is interesting, however, to note what proportion of the necessary living expenses is furnished by the farm as free goods and what proportion has to be bought.

Table II shows the relative amount of food, fuel, light, and shelter furnished by the farm. It will be noted that the value of the articles bought by farmers in North Carolina and Georgia is very low, being approximately only one-half as much as the average for all the States. In Texas the value of these purchases is high, owing to the fact that the section visited is quite dry at intervals during the summer and that therefore less vegetables and fruits are raised. A large percentage of the wood used for fuel in Texas is also bought.

TABLE II.—Average annual value of the food, fuel, and oil bought by the 483 families included in Table I.

State.	Number of families.	Persons in family.	Food.		Coal.		Wood.		Oil.		Total.	
			Per family.	Per person.	Per family.	Per person.	Per family.	Per person.	Per family.	Per person.	Per family.	Per person.
North Carolina.	55	4.5	\$71.28	\$15.85	.....	.....	\$1.71	\$0.38	\$3.10	\$0.69	\$76.09	\$16.92
Georgia.	50	5.4	104.42	19.32	.....	.....	.....	.....	5.18	.96	109.60	20.28
Texas.	44	5.3	213.47	40.30	17.35	\$3.27	15.17	2.86	7.58	1.43	253.57	47.86
Kansas.	46	4.5	157.41	34.97	12.70	2.82	.33	.07	7.21	1.60	177.65	39.46
Iowa.	51	4.4	146.43	34.87	29.57	7.04	.....	.....	6.92	1.65	182.92	43.56
Wisconsin.	46	4.2	143.25	32.56	20.70	4.70	3.00	.68	5.78	1.31	172.73	39.25
Ohio.	44	4.1	124.98	30.50	23.70	5.78	2.00	.49	4.88	1.19	155.56	37.96
Pennsylvania.	43	5.2	190.32	36.60	26.90	5.17	1.09	.21	6.37	1.21	224.68	43.19
New York.	55	4.0	186.71	46.68	16.00	4.00	1.00	.25	5.79	1.45	209.50	52.38
Vermont.	49	4.8	169.17	35.24	1.01	.21	2.00	.42	4.61	.96	176.79	36.83
Total or average.	483	4.6	150.75	32.69	14.79	3.30	2.63	.54	5.74	1.24	173.91	37.77

Of the products bought, mentioned in Table II, 86 per cent is food; 8 per cent, coal; 1.5 per cent, wood; and 4.5 per cent, oil. The total value of these is \$173.91 for a family of 4.6 persons. It can thus be seen that if an attempt were made to reduce this annual cost or expenditure, the first effort should be to raise more food products.

A comparison of the items furnished by the farm with those purchased is shown in Table III.

TABLE III.—Average annual value of the food, fuel, oil, and use of a dwelling enjoyed by the 483 families included in Tables I and II.

State.	Food, fuel, and shelter furnished by the farm.	Food, fuel, and oil bought.	Total.	State.	Food, fuel, and shelter furnished by the farm.	Food, fuel, and oil bought.	Total.
North Carolina.	\$429	\$76	\$505	Ohio.	\$451	\$156	\$607
Georgia.	520	110	630	Pennsylvania.	383	225	608
Texas.	363	254	617	New York.	431	210	641
Kansas.	426	178	604	Vermont.	349	177	526
Iowa.	485	183	668	Average.	421	174	595
Wisconsin.	375	173	548				

SIZE OF FAMILIES.

The family is the unit around which farm life centers. The relative quantity of food furnished by different farms for home consumption varies directly with the sizes of the families on these farms. Owing to the fact that children do not consume as much food as adults, the size of families, if size be determined merely by the number of persons, might not be comparable.

Dr. W. O. Atwater, of the United States Department of Agriculture, has worked out the dietary requirements of women and children of

different ages in terms of those of an adult man,¹ as follows: Adult woman, 0.8; boy of 15 to 16, 0.9; boy of 13 to 14, 0.8; boy of 12, 0.7; boy of 10 to 11, 0.6; girl of 15 to 16, 0.8; girl of 13 to 14, 0.7; girl of 10 to 12, 0.6; child from 6 to 9, 0.5; child from 2 to 5, 0.4; child under 2, 0.3.

In this bulletin, the size of the family is given in terms of adult equivalents and only two divisions are made. Children of 12 years of age and under were counted as one-half an adult, and everybody in the family over 12 was counted as an adult. This classification compares favorably with that of Dr. Atwater, assuming that in a group of families there are as many children in one age group as in another.

Hired men and domestic help were counted as adults. In case extra help was given board for only a part of a year, this help was counted as that fractional part of an adult for the whole year, all calculations being on the annual basis.

FOOD.

A family living on a farm receives certain food products from the home garden and farm which would otherwise have to be bought.

The average total value of the food consumed annually per family, with the percentage bought and that furnished by the farm, is shown in Table IV. The average value of the total food consumption per family is \$412.09, \$261.35 of this being furnished by the farm and \$150.74 purchased. As the average size of the family is 4.6 persons, the annual consumption per person is \$89.23.

TABLE IV.—Average annual value of the food of 483 farm families.

State.	Number of farms.	Average farm acreage.	Food consumed per family.			Proportion of food consumed.		Total consumption per person.
			Bought.	Furnished by farm.	Total.	Bought.	Furnished by farm.	
						<i>Per cent.</i>	<i>Per cent.</i>	
North Carolina.....	55	86	\$71.28	\$330.65	\$401.93	17.7	82.3	\$89.32
Georgia.....	50	102	104.43	376.03	480.45	21.7	78.3	88.97
Texas.....	44	133	213.47	275.62	489.09	43.6	56.4	92.30
Kansas.....	46	152	157.41	292.48	449.89	35.0	65.0	99.97
Iowa.....	46	161	146.43	297.28	443.71	33.0	67.0	105.67
Wisconsin.....	51	86	143.25	209.44	352.69	40.6	59.4	80.16
Ohio.....	44	175	124.98	248.28	373.26	33.5	66.5	91.07
Pennsylvania.....	43	77	190.32	201.69	392.01	48.6	51.4	75.40
New York.....	55	118	186.71	189.60	376.31	49.6	50.4	94.08
Vermont.....	49	130	169.17	192.43	361.60	46.8	53.2	75.34
Total or average.....	483	122	150.74	261.35	412.09	37.0	63.0	89.23

¹ U. S. Department of Agriculture, Farmers' Bulletin 142, p. 33.

It will be noted that in no section was less than half the value of the food received directly from the farm, that in North Carolina over 80 per cent was produced on the farm, and that the average for all sections was 63 per cent. The reasons for some of these variations will be brought out later.

The prices used for determining the value of groceries were the average prevailing retail prices for the year 1912. The value of the vegetables and fruits consumed was arrived at by charging the prices that these products would sell for on the farm when in season.

CLASSES OF FOOD.

In order to study the distribution of the food consumed, the various items have been divided into four classes: Groceries, animal products, fruits, and vegetables. These divisions include all items of food that were consumed by the family, both those bought and those furnished by the farm. These divisions may be defined by enumerating the items included in each division:

Groceries include coffee, tea, cocoa, chocolate, sugar, salt, flour, corn meal, buckwheat, Graham flour, hominy, crackers, bread, pastries, rice, breakfast cereals, lemons, oranges, bananas, raisins, dried prunes, dried apricots, spices, flavorings, sirups, molasses, yeast, soda, macaroni, and coconut.

Animal products include all meats, eggs, butter, milk, cream, lard, cheese, and honey.

Fruits include apples, peaches, pears, plums, apricots, berries, cherries, grapes, and canned fruit.

Vegetables include all vegetables, fresh, dried, or canned.

These divisions may seem somewhat arbitrary. Oranges, bananas, raisins, dried prunes, and apricots are classed as groceries for the reason that farmers naturally associate them with grocery items.

In Table V is shown the distribution of the value of food consumed in these divisions in terms of percentage of the total.

TABLE V.—*Distribution of the value of food used annually by 483 farm families.*

State.	Groceries.	Animal products.	Fruits.	Vegetables.	State.	Groceries.	Animal products.	Fruits.	Vegetables.
	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>		<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>
North Carolina ..	21.0	55.0	8.7	15.3	Ohio.....	25.5	60.7	6.3	7.5
Georgia.....	21.1	56.6	5.1	17.2	Pennsylvania....	27.1	56.4	6.5	10.0
Texas.....	24.1	60.6	3.7	11.5	New York.....	27.7	55.5	6.0	10.8
Kansas.....	22.9	58.8	7.0	11.3	Vermont.....	31.0	52.7	5.8	10.5
Iowa.....	22.0	61.0	6.0	11.0					
Wisconsin.....	26.0	56.0	8.0	10.0	Averages.....	24.8	57.3	6.3	11.5

Table VI shows what percentage of the food in the various classes is bought and what percentage is furnished by the farm.

TABLE VI.—*Proportion of value of groceries, animal products, fruits, and vegetables bought and those furnished by 483 farms.*

State.	Groceries.		Animal products.		Fruits.		Vegetables.	
	Bought.	Furnished by farm.	Bought.	Furnished by farm.	Bought.	Furnished by farm.	Bought.	Furnished by farm.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
North Carolina.....	76.0	24.0	2.7	97.3	2.0	98.0	3.9	96.1
Georgia.....	89.7	10.3	5.7	94.3	10.9	89.1	1.0	99.0
Texas.....	98.7	1.3	14.2	85.8	98.9	1.1	66.1	33.9
Kansas.....	99.2	.8	10.9	89.1	38.6	61.4	27.6	72.4
Iowa.....	98.4	1.6	4.3	95.7	44.5	55.5	52.6	47.4
Wisconsin.....	98.7	1.3	21.2	78.8	26.8	73.2	6.3	93.7
Ohio.....	97.0	3.0	8.4	91.6	38.2	61.8	16.2	83.8
Pennsylvania.....	97.8	2.2	33.2	66.8	25.2	74.8	15.4	84.6
New York.....	96.0	4.0	36.6	63.4	25.1	74.9	12.3	87.7
Vermont.....	92.8	7.2	27.6	72.4	23.6	76.4	16.3	83.7
Average.....	94.4	5.6	16.5	83.5	33.4	66.6	21.8	78.2

The question may arise, How much of what should be furnished by the farm is bought? It will be noticed in Table VI that, as an average for all sections, 16.5 per cent of the animal products are bought. Similarly, 33.4 per cent of the fruits, 21.8 per cent of the vegetables, and 94.4 per cent of the groceries are bought. Stating these percentages in actual values, the average values of food bought per family for the four classes are as follows: Groceries, \$95.20; animal products, \$37.20; fruit, \$8.17; vegetables, \$10; making a total of \$150.57. Some of these expenditures could, no doubt, be wisely reduced by making the farm produce more of these foods. On the other hand, it would be mistaken economy to expect to raise all food products other than groceries. The original data show that wherever there is an increase in the consumption of animal products, fruits, or vegetables, there is not only a relative decrease in the groceries consumed, but an actual decrease in consumption per person in this class. More fruit and vegetables for home consumption could undoubtedly be raised to advantage, and in this way the requirements for meats and groceries would be reduced.

GROCERIES.

In this bulletin the word "groceries" includes those articles of food which are largely bought by the average farmer. They comprise in value approximately one-fourth of the total food consumed.

Wheat flour is generally bought except in a few areas where wheat is exchanged for flour at the mill. In North Carolina about one-third of the farmers had their wheat ground into flour. Considerable corn was ground into corn meal in North Carolina, Georgia, Wisconsin, and Ohio. Flour, corn meal, and buckwheat furnished by the farm

account for the fact that only 94.4 per cent of the groceries are purchased. This is especially noticeable in North Carolina, where only 76 per cent of the groceries are bought. (See Table VII.) Sirup is an important grocery item in some areas. The average value of maple sirup consumed annually per person in Vermont was \$1.64, and in New York, \$1.35. Maple sirup and sugar are considered delicacies in these sections. Sorghum sirup is made and used on farms in North Carolina and Georgia. The average value consumed per person was 44 cents in North Carolina and \$1.14 in Georgia.

It is not unusual to find grocery bills partly paid for in vegetables, fruits, and other farm products, such as butter and eggs. In North Carolina and Georgia many farmers did not pay cash for any groceries, but took vegetables and farm products to the grocer in sufficient quantities to more than pay for the groceries used. In some sections the poultry products alone are of sufficient value to pay the grocery bills.

ANIMAL PRODUCTS.

The animal products group comprises 57.3 per cent of the total value of food consumed. It includes the more expensive articles of food having a high protein content. As indicated in Table VI, 83.5 per cent of these products are furnished by the farm. The percentage is highest in the South.

Butter was made on the farm except in dairy sections. In Wisconsin, 41 per cent of the farmers bought butter; Pennsylvania, 40 per cent; New York, 65 per cent; and Vermont, 51 per cent. The dairy industry is important in all these areas. In the other sections less than 5 per cent of the farmers bought butter. Few cream separators were used in the three southern areas visited. Much buttermilk was thus available. This is used for household purposes and accounts for the decrease in the use of whole milk in these areas, as shown in Table VII. The practice here is to churn the whole milk, thus giving a good quality of buttermilk, which contains some butter fat and furnishes a cool drink.

TABLE VII.—Average quantities and values of various articles of food consumed annually per person on 483 farms.¹

State.	Coffee.		Tea.		Sugar.		Flour.		Bread and pastries.	Pork raised.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.		Pounds.	Value.
North Carolina.....	6.8	\$1.77	.....	.....	62	\$3.37	313	\$8.80	Value.	122	\$13.44
Georgia.....	5.7	1.44	.....	\$0.09	58	3.17	232	6.95	.17	128	14.01
Texas.....	10.0	2.52	.....	.20	61	3.37	206	6.81	.46	118	14.17
Kansas.....	8.7	2.78	.....	.....	83	4.91	221	6.15	1.60	121	11.72
Iowa.....	10.8	3.24	.....	.59	96	5.79	208	5.44	1.00	156	14.37
Wisconsin.....	10.0	2.99	.....	.35	73	3.63	230	7.34	.85	135	12.32
Ohio.....	9.5	2.86	.....	.50	92	5.51	195	6.23	1.98	162	15.85
Pennsylvania.....	7.3	2.19	.....	.21	69	3.46	141	4.22	5.37	94	9.37
New York.....	6.2	2.02	2.0	.99	94	5.17	184	5.53	2.21	48	5.77
Vermont.....	3.2	1.04	2.7	1.24	77	4.41	230	6.90	.91	52	4.16
Average.....	7.8	2.28	.....	.42	76	4.28	217	6.44	1.46	114	11.52

State.	Beef raised.		Meat bought.	Poultry.		Milk.		Buttermilk.		Butter.	
	Pounds.	Value.		Number.	Value.	Gallons.	Value.	Gallons.	Value.	Pounds.	Value.
North Carolina.....	2	\$0.20	Value.	11.5	\$2.87	33.4	\$8.36	85.8	\$8.58	41	\$8.26
Georgia.....	13	1.06	1.12	17.6	4.41	7.5	1.87	105.0	10.50	52	10.47
Texas.....	.....	.....	6.12	13.0	4.56	11.0	2.63	90.0	9.88	44	11.08
Kansas.....	33	3.95	4.11	21.4	7.42	63.0	12.57	.....	.....	35	8.73
Iowa.....	28	2.77	4.52	14.1	7.06	63.0	10.11	.....	.....	37	9.27
Wisconsin.....	16	1.55	4.66	9.7	3.75	38.0	6.07	.....	.....	31	8.15
Ohio.....	14	1.24	3.64	14.7	5.87	65.0	10.61	.....	.....	30	8.04
Pennsylvania.....	23	2.76	9.86	5.0	2.53	33.0	5.22	.....	.....	19	5.77
New York.....	24	2.17	9.38	8.7	4.19	51.0	7.50	.....	.....	38	11.92
Vermont.....	21	1.69	4.09	3.6	2.16	47.0	7.53	.....	.....	29	8.82
Average.....	17	1.74	4.95	11.9	4.48	41.2	7.25	28.0	2.90	35.6	9.05

State.	Eggs.		Apples.		Peaches (value).	Irish potatoes.		Sweet potatoes.	
	Dozen.	Value.	Bushels.	Value.		Bushels.	Value.	Bushels.	Value.
North Carolina.....	27.0	\$5.50	3.5	\$2.66	\$2.16	1.8	\$2.13	3.8	\$3.85
Georgia.....	26.6	5.03	1.1	1.13	2.17	1.5	2.32	6.2	6.16
Texas.....	38.8	5.81	.8	1.20	.88	2.7	3.24	.6	.74
Kansas.....	43.2	6.92	4.8	2.70	1.11	5.7	4.40	.....	.09
Iowa.....	58.3	10.50	4.9	2.53	1.07	7.6	4.42	.....	.....
Wisconsin.....	37.8	6.80	3.1	2.92	.41	8.6	4.31	.....	.....
Ohio.....	41.3	9.08	2.5	1.76	1.44	5.6	2.81	.....	.12
Pennsylvania.....	18.3	5.11	2.0	1.92	.64	5.6	2.80	.....	.....
New York.....	29.3	9.14	4.7	2.41	.64	8.0	4.17	.....	.....
Vermont.....	17.0	4.23	3.2	2.41	.21	9.7	3.98	.....	.....
Average.....	33.8	6.81	3.1	2.16	1.07	5.7	3.45	.....	1.10

¹ Wherever the data refer to the quantity consumed or the cost per person they are figured on the basis of adult equivalents.

MEAT.

Table VIII shows that pork constitutes 64.1 per cent of all meat furnished by the farm; poultry is next, with 25.2 per cent, and beef 10.7 per cent. Hardly any mutton was used by the farmers interviewed. No definite statistics were obtained as to the relative amount of different kinds of meat bought, but beef constitutes the largest percentage.

TABLE VIII.—*Classification and value of meats (exclusive of fish) furnished by the 488 farms; showing also the proportion of meats bought.*

State.	Classification of meats furnished by the farm.			Proportion of all meats—	
	Pork.	Beef.	Poultry.	Bought.	Furnished by farm.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
North Carolina.....	81.4	1.2	17.4	6.3	93.7
Georgia.....	71.9	5.4	22.7	9.2	90.8
Texas.....	75.6	0	24.4	24.6	75.4
Kansas.....	50.8	17.1	32.1	15.1	84.9
Iowa.....	59.4	11.4	29.2	15.7	84.3
Wisconsin.....	70.0	8.7	21.3	20.9	79.1
Ohio.....	69.1	5.4	25.5	13.7	86.3
Pennsylvania.....	63.9	18.8	17.3	40.2	59.8
New York.....	47.5	17.9	34.6	43.6	56.4
Vermont.....	51.9	21.1	27.0	33.8	66.2
Average.....	64.1	10.7	25.2	22.3	77.7

Table VIII also shows the relative quantity of meat (not including fish) bought and furnished by the farm. The farmers in North Carolina and Georgia buy very little meat, and most of that used is pork and poultry. The Texas farmers also use much pork, but buy more bacon than the North Carolina and Georgia farmers, which is the reason for the relatively high percentage of meat bought in Texas. The noticeable increase in meat bought is in Pennsylvania, New York, and Vermont, where more beef is consumed, most of which is purchased. It is a common practice in these sections for butchers to retail meat to the farmers by sending wagons through the country districts twice a week.

FRUITS.

The value of fruit consumed constitutes 6.3 per cent of the total value of food products used. This percentage is fairly constant throughout the different areas visited except Texas, where the percentage is only 3.7. This is due to the fact, as shown in Table VII, that practically all fruits have to be bought, only 1.1 per cent of the fruit used being raised on the farm.

In Georgia and North Carolina but little fruit is bought. Relatively more fruit was used in the North Carolina area than in any of the other sections, and most of this is supplied directly by the farm. The amount of fruit consumed by the average family depends somewhat on the season. If fruit is plentiful more will be used. This is true of all the sections visited. Much of the fruit as well as vegetables utilized by the family on the farm has no real marketable value, but as it takes the place of food which would have to be bought it would seem logical to credit the farm with such products at a fair average price. This has been done in this bulletin.

The proverbial apple at bedtime is, unfortunately, not so common as formerly. The farmer in most sections can have fresh fruit the greater part of the year at comparatively little expense.

VEGETABLES.

For the sections visited, 11.5 per cent of the total value of food consumed consisted of vegetables. Table V shows that the relative quantity of vegetables grown is fairly constant for all areas except Georgia and North Carolina, where more is consumed, owing to the longer growing season. Sweet corn and beans, for instance, are planted at intervals and are in season from four to five months in these States.

The quantity of vegetables consumed in Ohio is low and the grocery and animal-product groups are relatively higher. This bears out a previous statement that by using more vegetables the requirements for the more expensive animal products and grocery items are reduced in proportion.

Table VI shows the percentage of the vegetables bought in the various sections.

PER CAPITA CONSUMPTION OF SPECIFIED ITEMS.

In New York and Vermont the consumption of coffee is low, for the reason that more tea is used. The quantity of cereals consumed varies with the fancies of the individual families. In those sections close to the larger markets, where the market value of poultry is greater, the consumption is less. Approximately one head of poultry a month for each person is the average for all sections. Each person consumes annually 3.1 bushels of apples. This would be considerably increased if more attention were given to the farm orchard.

In the Southern States more sweet potatoes than Irish potatoes are used. The average consumption per person for all sections is 5.7 bushels of Irish and 1 bushel of sweet potatoes. For those sections not using sweet potatoes the average consumption of Irish potatoes is 7.3 bushels per person.

RELATION OF THE COST OF FOOD PER PERSON TO THE SIZE OF THE FAMILY.

Table IX shows that there is a direct relationship between the quantity of food used per person and the size of the family and that there is a more economical utilization of food products in large families than in small families. This fact should be borne in mind when prorating the consumption per person, as found in this investigation, in families of different sizes. It will be noted that this holds true with products bought, as well as with products furnished by the farm. Of the products purchased, families of four and five persons use 20 per cent less per person than those of two and three persons, while those of six persons or more use 25 per cent less. Of the products furnished by the farm, these percentages are 15 and 26, respectively.

TABLE IX.—*Relation of annual cost of food per person to the size of the family.*

State.	Families of 2 and 3 persons.				Families of 4 and 5 persons.				Families of 6 persons and over.			
	Number of farms.	Bought.	Furnished by farm.	Total.	Number of farms.	Bought.	Furnished by farm.	Total.	Number of farms.	Bought.	Furnished by farm.	Total.
North Carolina.....	23	\$23	\$84	\$107	13	\$16	\$78	\$94	19	\$12	\$69	\$81
Georgia.....	9	24	95	119	18	23	76	99	23	17	62	79
Texas.....	11	55	78	133	16	40	56	96	17	37	43	80
Kansas.....	19	39	68	107	16	35	65	100	11	32	62	94
Iowa.....	19	38	82	120	19	33	62	95	8	33	70	103
Wisconsin.....	22	45	53	98	20	27	49	76	9	34	40	74
Ohio.....	22	39	69	108	16	28	59	87	6	24	53	77
Pennsylvania.....	9	44	48	92	22	39	45	84	12	32	30	62
New York.....	25	53	53	106	22	44	47	91	8	43	41	84
Vermont.....	18	40	54	94	15	38	40	78	16	31	32	63
Total or average.....	177	40	68	108	177	32	58	90	129	30	50	80

FUEL.

Fuel is not as important an expenditure on the farm as in the city home. Heaters in the country are the exception rather than the rule and fewer rooms are heated than in the city.

TABLE X.—*Average annual consumption of fuel and oil per family in quantity and value.*

State.	Coal.		Wood.		Oil.		Corncobs.	
	Tons.	Value.	Cords.	Value.	Gallons.	Value.	Loads.	Value.
North Carolina.....			14.0	\$43.58	22.0	\$3.10		
Georgia.....			17.8	51.60	34.5	5.18		
Texas.....	2.0	\$17.35	6.1	19.30	55.4	7.58		
Kansas.....	1.4	12.70	4.9	12.20	81.4	7.21	12.0	\$6.10
Iowa.....	3.9	29.57	4.8	22.40	56.0	6.92	7.8	7.80
Wisconsin.....	3.0	20.70	7.5	38.80	46.7	5.78		
Ohio.....	5.7	23.70	12.0	32.50	50.0	4.88		
Pennsylvania.....	4.9	26.90	6.2	19.00	63.0	6.37		
New York.....	2.5	16.00	12.3	54.80	56.6	5.79		
Vermont.....	.1	1.01	14.3	65.40	39.0	4.61		
Average.....	2.3	14.79	10.0	35.96	50.5	5.74	2.0	1.40

Wood, coal, and corncobs are used for fuel. The total annual consumption per family is enumerated for the various sections in Table X. Cobs were used to an appreciable extent in Kansas and Iowa only. A standard wagon box 50 inches high holds a load of cobs, the volume from 100 bushels of corn. The oil shown in Table X was used mostly for lighting, though in a few instances some was used for cooking.

The average cost per family for all sections visited was \$14.79 for coal, \$35.96 for wood, \$5.70 for oil, and \$1.40 for cobs.

Table XI shows the total value of fuel consumed. The average value for the ten sections is \$52.14 per family and \$11.49 per person. Here, again, the farm comes in as a strong contributor to the family's annual budget. For all sections the farm furnishes on an average

64.1 per cent of all the fuel used, while in Georgia and Iowa it furnishes all the wood.

TABLE XI.—*Value of fuel (coal, wood, and corncobs) consumed annually, with the percentage of the total value bought and that furnished by the farm.*

State.	Average.		Bought.	Furnished by farm.
	Per family.	Per person.		
North Carolina.....	\$43.58	\$9.68	Per cent. 3.9	Per cent. 96.1
Georgia.....	51.60	9.56	.....	100
Texas.....	36.65	6.91	88.7	11.3
Kansas.....	31.00	6.89	42.0	58
Iowa.....	59.77	14.23	49.4	50.6
Wisconsin.....	59.50	13.53	39.8	60.2
Ohio.....	56.20	13.71	45.7	54.3
Pennsylvania.....	45.90	8.83	61.0	39
New York.....	70.80	17.70	24.0	76
Vermont.....	66.41	13.83	4.5	95.5
Average.....	52.14	11.49	35.9	64.1

ANNUAL CONSUMPTION OF WOOD.

It will be seen in Table XII that the highest wood-consuming areas are North Carolina, Georgia, New York, and Vermont. In the two Southern States mentioned, approximately three-fifths of all the wood was used in fireplaces. The other two-fifths was used in cookstoves. The low consumption of wood per family in the other areas is due to the use of greater quantities of coal and corncobs.

For all sections studied, 89 per cent of the wood used in the houses for fuel was furnished by the farm. In the four States mentioned where wood was used principally for fuel, the quantity furnished by the farm was 98 per cent. Of the five principal wood-consuming States, in no one did the quantity purchased exceed $6\frac{1}{2}$ per cent of the total used.

TABLE XII.—*Value of annual consumption of wood on 483 farms.*

State.	Average consumption.				Bought.	Fur- nished by farm.
	Per family.		Per person.			
	Cords.	Value.	Cords.	Value.		
					<i>Per cent.</i>	<i>Per cent.</i>
North Carolina.....	14.0	\$43.58	3.1	\$9.68	3.9	96.1
Georgia.....	17.8	51.60	3.3	9.56	-----	100
Texas.....	6.1	19.30	1.1	3.64	78.6	21.4
Kansas.....	4.9	12.20	1.1	2.71	2.7	97.3
Iowa.....	4.8	22.40	1.7	8.82	-----	100
Wisconsin.....	7.5	38.80	1.1	5.34	7.7	92.3
Ohio.....	12	32.50	2.9	7.93	6.2	93.8
Pennsylvania.....	6.2	19.00	1.2	3.65	5.8	94.2
New York.....	12.3	54.80	3.1	13.70	1.8	98.2
Vermont.....	14.3	65.40	3.0	13.62	3	97
Average.....	10	35.96	2.2	7.87	11	89

COMPARISON OF THE USE OF COAL AND WOOD IN NEW YORK.

In the New York area nearly one-half of the farmers burned coal and the other half burned wood only. It would naturally be expected that the farmers not using any coal would use more wood. It will be noted in Table XII that the average consumption of wood per family for all families in this area is 12.3 cords. The average quantity used by families not burning coal is 13.7 cords, and that of the families burning coal is only 10.3 cords, a difference of 3.4 cords. Where coal is used, the average quantity is 5.6 tons. It was impossible to get separate data on the wood used for cooking and that for heating, but if the 5.6 tons of coal merely took the place of the 3.3 cords of wood, the wood would have been considerably cheaper, the value of the wood being \$15 and that of the coal, \$35. The coal was probably used more for heating purposes, which may indicate that these homes were provided with better heating systems.

HOUSE RENT.

The value of the use of the house on the farm is often not appreciated. In cities and towns the rent on dwellings is a very important item of expenditure and ranks next to the cost of food and clothing. In speaking of the business of the farm, the value of the house is a part of the real-estate value of the farm. The interest on the investment is thus paid for by the farm, leaving it to the free use of the family.

The method used in arriving at the rental value of the dwelling was to obtain estimates of its present value and use 10 per cent of that amount, which includes interest, depreciation, and repairs. The rate of interest varies in different sections and the depreciation varies with the type of the building, but the rate assumed seems to be a fair allowance for rental charges. If the original cost of the house were taken, the rate of annual charge would be much less.

Table XIII gives the average estimated value of the farmhouses for the various sections. It will be noticed that the building values in the Southern States are lower than those in the other sections, less shelter being needed there than in the colder climates. Cellars are a rarity, and the general construction of the house is such that the original cost of building is not great.

TABLE XIII.—Average present value and annual rental value of 361 farm dwellings.

State.	Number of farms.	Value of farm-house.	Rental value.	State.	Number of farms.	Value of farm-house.	Rental value.
North Carolina.....	51	\$560	\$56	Ohio.....	34	\$1,724	\$172
Georgia.....	40	920	92	Pennsylvania.....	22	1,632	163
Texas.....	42	834	83	New York.....	28	1,880	188
Kansas.....	36	1,160	116	Vermont.....	31	930	93
Iowa.....	37	1,580	158	Total or average..	361	1,251	125
Wisconsin.....	40	1,297	130				

Where conveniences, such as a water-supply system and a central heating plant, are added to the farmhouse, the annual rental charge increases. Labor-saving conveniences in the average farm dwelling, however, are no doubt profitable improvements.

WATER SUPPLY.

The original cost of the water-supply system of the farmhouse is generally considerably lower than that for the city house, mainly because the water is not so conveniently available and is less often piped on the farm. Much more time is spent by the average house-keeper in the farm home in pumping and carrying water than by her sister in the city, the well or spring being often located some distance from the dwelling.

There is a great variety of farm water-supply systems. In the areas visited in the Southern States the common source of supply is a well, a bucket and rope being used in drawing the water. The initial investment in these is very small. Repairs also amount to little. If, however, the labor required to draw the water were capitalized, the system would be found to be quite expensive.

In Kansas, Iowa, and Wisconsin many windmills are in use. These windmills are intended mainly for supplying water for the stock in the barns, though on some farms the water is also pumped to the house. The prevailing types of pumps in wells in the Northern States studied are wooden and iron suction and force pumps. The investment in these pumps is small and the depreciation and repair charges are low.

In the New York and Vermont areas many farms had running water. The initial investment in those systems is nearly always equal to and sometimes greater than the well and pump system, but the convenience of the former saves much labor. Better water-supply systems are one of the great needs of farm homes.

LABOR.

The household labor necessary to prepare meals and care for the home is an important item. An estimate of the value of this labor was obtained in each section. These estimates were based on what

the farmer's wife thought she would have to pay to have some one do this work during the year.

TABLE XIV.—*Relation of the size of the family to the average annual household-labor cost.*

Number of persons in family.	Group distribution of labor cost per family.										Average per person.
	North Carolina.	Georgia.	Texas.	Kansas.	Iowa.	Wisconsin.	Ohio.	Pennsylvania.	New York.	Vermont.	
2 and 3.....	\$120	\$127	\$186	\$215	\$243	\$200	\$177	\$162	\$203	\$158	62
4 and 5.....	154	130	209	250	262	252	205	206	215	181	45
6 and over.....	188	148	244	356	355	322	249	268	294	211	38
Average:											
Per family.....	152	138	217	261	270	177	197	214	221	182	.....
Per person.....	34	25	41	58	64	54	49	41	56	38	46

The total value of the labor cost, as given in Table XIV, includes that of the farmer's wife, the members of the family, and the hired help. The greater proportion of the work in the regions studied was performed by the family. In Kansas, Wisconsin, Pennsylvania, and Vermont only about 1 per cent of the labor of the house was hired; in New York, Ohio, and Iowa, 3 per cent; in North Carolina, 5 per cent; Texas, 7 per cent; and Georgia, 15 per cent. There was a universal complaint that domestic help was very hard to get and in many sections nearly impossible. In the South, less complaint was heard along this line.

COST OF BOARD.

In the previous pages, the value of the food and fuel consumed by the average family on the farm and the value of the house labor on these farms have been discussed. From these data it is possible to get a general idea as to the cost of board on the farm.

The value of the fuel can not all be charged to the preparation of meals. Approximately two-fifths of the fuel is used for this purpose, the remainder being employed for heating purposes. The fuel for the cookstove consists mainly of wood and cobs, the farm thus furnishing most of the fuel for the preparation of meals.

The value of the labor, as shown in Table XIV, is not limited to that required for the preparation of meals, but includes all housework. No definite statistics are available to show what percentage of the labor of the house may reasonably be charged to the cost of meals. It is assumed, however, from general knowledge, that three-fifths of the labor of the house is devoted directly or indirectly to the preparation of meals, which includes all general kitchen work and the preparation of fruits and vegetables.

Table XV shows the value of food, fuel, and labor chargeable to the cost of board. In this table the fuel charges are only two-fifths

of the total value of the fuel consumed and the labor charges are three-fifths of the total value of house labor. Aside from the value of the food itself, these are the most important factors which enter into the cost of meals. Other factors, such as interest and depreciation on kitchen equipment and a certain part of the rental value of the house for the use of kitchen, dining room, and cellar, with other items of only minor importance, have not been included.

TABLE XV.—Average annual cost of food, fuel, and labor per person chargeable to the cost of board.

State.	Value of—			Cost of board per person.	
	Food.	Fuel.	House labor.	Annual.	Average per month.
North Carolina.....	\$89	\$4	\$20	\$113	\$9.41
Georgia.....	89	4	15	108	9.00
Texas.....	92	3	25	120	10.00
Kansas.....	100	3	35	138	11.50
Iowa.....	106	6	38	150	12.50
Wisconsin.....	80	5	32	117	9.75
Ohio.....	91	5	29	125	10.42
Pennsylvania.....	75	4	25	104	8.67
New York.....	94	7	34	135	11.25
Vermont.....	75	6	23	104	8.67
Average.....	89	5	28	122	10.12

It will be seen in Table XV that the average annual cost of board per person for the sections visited is \$122, giving an average cost per month of approximately \$10. The average annual consumption of food for a hired man is probably somewhat greater than that of the average adult equivalent, although this difference would not materially affect the total cost of meals per month, since the fuel and labor charges remain constant. It may be interesting to note that of this \$10 a month, the farmer has to pay out only \$3, the remainder being furnished by the farm in food, fuel, and labor not hired.

COST OF BOARD AND LODGING.

The cost of board and lodging may be roughly determined by taking the total cost of food, fuel, oil, house labor, and rental value of the dwelling. This figure should be a general indication of the average value of the "keep" of the hired man.

It will be seen by Table XVI that this value equals \$176 a year, or \$14.64 a month. Of this, \$10 is for board, while the remainder is chargeable to the general labor of the house other than that devoted to the preparation of meals and the cost of the fuel used for heating purposes. Assuming these charges for the hired man, he must be given the privileges of the house enjoyed by the family.

TABLE XVI.—Average annual cost of food, fuel, oil, house rent, and house labor for each person in the farm family.

State.	Value of—					Total cost of board and lodging.	
	Food.	Fuel.	Oil.	House rent.	House labor.	Annual.	Average per month.
North Carolina.....	\$89.32	\$9.68	\$0.69	\$12	\$34	\$146	\$12.18
Georgia.....	88.92	9.56	.96	17	25	141	11.75
Texas.....	92.30	6.91	1.43	16	41	158	13.17
Kansas.....	99.97	6.89	1.60	26	58	192	16.00
Iowa.....	105.67	14.23	1.31	36	64	221	18.42
Wisconsin.....	80.16	13.53	1.65	31	54	180	15.00
Ohio.....	91.07	13.71	1.19	42	49	197	16.41
Pennsylvania.....	75.40	8.83	1.21	31	41	157	13.17
New York.....	94.08	17.70	1.45	47	56	216	18.00
Vermont.....	75.34	13.83	.96	19	38	147	12.25
Average.....	89.23	11.49	1.25	28	46	176	14.64

RELATIVE CONSUMPTION OF FOOD BY FAMILIES ON OWNED AND RENTED FARMS.

Of the 483 families visited, 72 per cent were those of the owners of farms and 28 per cent were tenants. The average size of the farm owner's family was 4.7 persons and of the tenants 4.4. Table XVII shows that the tenants as a class received more food products from the farm than the owners.

TABLE XVII.—Comparison of the food products used on owned and rented farms.

Value of food.	Owners.		Tenants.	
	Per family.	Per person.	Per family.	Per person.
Furnished by farm.....	\$248	\$53	\$266	\$60
Total consumed.....	418	89	391	88

Even though the tenants consume on the average only one dollar's worth of food less a year per person than the owners, they obtain seven dollars' worth more from the farm. In other words, the tenants buy eight dollars' worth of food less per person annually than the owners. Tenants depend largely on the farm for food. Owners have both labor and capital income, and hence have more with which to buy food. The average size of the family of the tenant is only slightly less than that of the owner.

SUMMARY.

This bulletin considers the amount the farm should be credited with for that which it furnishes to the farmer's family in products and in the privilege of the use of the farmhouse. In the group of items

studied, however, data are presented covering the amount purchased, as well as that furnished by the farm.

Studies were made in 10 localities, covering 3 cotton-growing, 2 corn-belt, 2 general-farming, and 3 typical dairy sections.

The average annual value of food, fuel, oil, and shelter per person for the families visited was \$129.74, of which \$91.97 was furnished directly by the farm and \$37.77 purchased. The average value per family was \$595.08, of which \$421.17 was furnished by the farm and \$173.91 purchased.

The average cost of the food consumed per person was \$89.23. Of this food 63 per cent was furnished by the farm. The total food products consumed annually were distributed as follows: Groceries, 24.8 per cent; animal products, 57.3 per cent; fruits, 6.3 per cent; vegetables, 11.6 per cent. Three-fourths of the food consumed belonged to the general class of farm-furnished products, although only 63 per cent of the food used was actually taken directly from the farm.

The quantity of fruit and vegetables used is in direct proportion to the quantity raised on the farm. It was also found that the grocery bill was reduced where increased quantities of fruit and vegetables were grown for home use.

The average annual value of the use of the farmhouse was found to be \$125 per family. The value of the dwelling is generally considered a part of the value of the farm and is thus furnished free for the use of the farm family. The importance of this is fully appreciated by the family in the town or city paying house rent.

The house labor was performed chiefly by members of the family, only 4 per cent being hired. The average annual value of this labor was \$203 per family.

The average cost of board for each person, that is, the value of the food and its preparation, was \$10 a month. The cost of board and lodging was \$14.62. Of this sum, on the average only 22 per cent was paid out in actual cash by the farmer.

The result of these studies shows that the farmer's cost of living in actual cash expenditures is very materially reduced by what the farm furnishes in food products, fuel, and house rent; in fact, the income from this source adds as much to the real wealth of many farmers as does the net income from the sale of farm products.

If it were not for those products contributed by the farm without any actual cash expenditure, a great many farmers would not have a comfortable living. Extensive investigations relative to the profits in farming indicate that the average labor income of the farmer probably differs little from ordinary farm wages, but in addition to this, he has the products contributed by the farm, as discussed in this bulletin.